

HESS-SOP-IR-1 to HECO

Ref.: HECO's SOP p. 18

Is HECO's revised Tariff Rule Nos. 14H based on the National Interconnection Standard IEEE 1547?
If no, please explain in detail how they deviate and why?

HECO Response:

HECO's Rule 14.H interconnection standards were developed based on the latest draft of the IEEE Standard 1547 at the time of development. HECO also referenced other state's interconnection standards (California, New York, and Texas) when developing its interconnection standards.

HESS-SOP-IR-2 to HECO

Ref.: HECO's SOP p.18

Does HECO's revised Tariff Rule Nos. 14H have time frames for HECO to respond to interconnection request and set fees for Interconnection. If yes, please explain how such time frames and fees were determined and how they are being implemented. If no, please explain in detail why not.

HECO Response:

HECO's Rule 14.H, Appendix III, provides an overview of the interconnection process. Upon receiving a customer request to interconnect a distributed generating facility, the Distributed Generating Facility Interconnection Standards Technical Requirements (Appendix I), Standard Interconnection Agreement (Appendix II) and Interconnection Process Overview (Appendix III) normally will be transmitted to the customer within 5 business days. Following submission by the customer of all necessary information regarding the proposed distributed generating facility, HECO will perform an initial technical screening of the impact of the distributed generating facility on the utility's system. HECO shall respond to the customer with the findings of the initial technical screening within 15 business days. If HECO determines that additional technical study of the interconnection proposal is necessary, then HECO will notify the customer of the target date to complete any required additional technical study.

No fees will be assessed for the initial technical screening. If HECO determines that additional technical study is necessary, a cost estimate and schedule for the analyses will be provided to the customer before the overall study is started. The scope and cost of the analyses will depend on the complexity of the utility system that the generating facility is interconnected to which must be modeled, and the degree to which the generating facility will affect the utility system.

HESS-SOP-IR-3 to HECO

Ref.: HECO's SOP p.18

Does HECO have any other requirements in order for DG to be interconnected to its grid; i.e. relay settings and types. If yes, please explain in detail these requirements.

HECO Response:

HECO's technical requirements for DG interconnection to its grid are stated in Rule 14.H, Appendix I. However, as expressed in Rule 14.H, the specific interconnection requirements for a distributed generating facility may increase or decrease, based on factors such as the size of the generating facility, the type of technology and the point on the utility's system at which the generating facility will be interconnected.

HESS-SOP-IR-4 to HECO

Ref.: HECO's SOP p. 30.

If Hawaiian Electric Light Company, Inc. ("HELCO") does not repeal its Standby Rate Rider A, does HELCO plan to impose Rider A on itself if it owns DG resources. If no, please explain in detail why not?

HECO Response:

HELCO's position regarding its Standby Service tariff provisions, "Rider A", is stated on pages 72-75 of the Companies' CHP Program Application, filed October 10, 2003 in Docket No. 03-0366 and pages 1-3 of its Rider A – Standby Service Report, filed August 25, 2003, in Docket No. 99-0207. The cover sheets and relevant pages are attached. HELCO plans to charge for the electricity delivered from CHP systems installed as part of its CHP Program (or any Rule 4 Contracts), along with electricity supplied from the grid, through its regular rate schedules (with the specified discount to CHP system kilowatthours to take into account economies offered by locating generation at customer sites). HELCO will recover demand costs through the demand charge and the energy charge in the regular rate schedules (which non-utility CHP System users avoid for electricity from their CHP systems, thereby necessitating the implementation of a standby charge) rather than through Rider A.

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII**

In The Matter Of The Application Of

**HAWAIIAN ELECTRIC COMPANY, INC.
HAWAII ELECTRIC LIGHT COMPANY, INC.
MAUI ELECTRIC COMPANY, LIMITED**

**For Approval of a CHP Program, Schedule CHP -
Customer-Sited Utility-Owned Cogeneration
Service, Inclusion of Related Fuel Costs in the
Energy Cost Adjustment Clause, and a
Modification to the Energy Cost Adjustment Clause
and Schedule Q.**

03 - 0366
DOCKET NO.

FILED
2003 OCT 10 P 3:57
**PUBLIC UTILITIES
COMMISSION**

APPLICATION

AND

CERTIFICATE OF SERVICE

**William A. Bonnet
Vice President, Government
and Community Affairs
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840
Telephone: 543-5660**

generally has no more information unless it has previously worked with a customer. In order to design a CHP system, the customer's heat use must be known. Every utility customer has more information available than the utility and is free to make its own decision whether or not to share that information with any potential CHP supplier.

4. Standardized Interconnection Tariff, Standards and Review Process

The Companies have a standardized interconnection tariff, standards and review process, in the form of Tariff Rule 14.H, which has been reviewed and approved (as revised) by the PUC. The Companies' CHP system installations will meet the same standards, and be subject to the same review and study process, as non-utility CHP system installations.²³

5. Standby Service

One of the "concerns" identified by the Complainants in Informal Complaint No. IC-03-098 was with the Standby Charge provision (Rider A, Standby Service) on the Big Island, which they claimed would make "HELCO-owned and maintained CHP . . . far more economical to the customer than third-party-owned or customer-owned on-site generation."²⁴

In response, the Companies pointed out that Complainants' "concerns" regarding the Standby Service rider were overstated. The Rider A provision on Hawaii was stipulated to by the Consumer Advocate, and approved by the Commission, after

²³ The utilities make every effort to review site-specific interconnection requirements in a timely manner; however, each site specific requirement does require individual review.

²⁴ July 1, 2003 Letter to the Commission from the Vice-President for Pacific Machinery, Inc., the Branch

extensive review and revision in Docket No. 99-0207.²⁵ If DG/CHP customers install the DG/CHP meter required by the rider, and take advantage of the options offered by the rider, they may well be able to obtain backup service at lower cost than under HELCO's regular rate schedules.²⁶

A standby service provision was proposed on the Big Island because of HELCO's concern that application of its existing rate schedules to customers with on-site generation would not cover the cost of providing backup service to such customers. The goal in designing Rider A was to set fair and equitable rates that reasonably recovered the costs of providing standby service from standby customers imposing such costs. The following principles were applied in designing Rider A:

1. The standby service rates should be fair to the customer while reflecting the unique characteristics of the utility system, the costs of providing the service, the requirements placed on the utility system by the standby service customer, and the impacts on other customers.
2. Standby service rates should send proper price signals, such that economically efficient decisions on the part of self-generators to secure standby service result. Standby service rates should not encourage uneconomic bypass²⁷ or

Manager for Johnson Controls, Inc., and the Manager-Construction for Noresco, Inc., Appendix, p. 10.

²⁵ The Standby Service rider was approved and allowed to take effect by Decision and Order No. 18575 (filed June 1, 2001), in Docket No. 99-0207. The Standby Service rider went into effect on June 5, 2001.

²⁶ As is indicated in HELCO's Rider A Standby Charge Report filed August 7, 2002, and in the report filed on August 25, 2003, customers receiving standby service have not installed the meter socket required by Rider A.

²⁷ "Uneconomic bypass" occurs when the cost of a customer's alternative source of electrical energy is

encourage inefficient use of standby service to the detriment of other customers.

In their informal complaint, Complainants suggested that HELCO simply “repeal” Rider A. As indicated in its Rider A – Standby Service Report filed August 25, 2003, HELCO considered that option, but believes that Rider A should continue to apply to non-utility DG/CHP installations unless it is determined that that would be unfair after HELCO enters the CHP business on a regulated basis. Thus, in this proceeding, HELCO requests either (1) a finding that continued application of the standby service rider is fair in light of its proposed CHP pricing, or in the alternative (2) a determination that application of the standby service rider to non-utility DG/CHP installations should be made voluntary.²⁸ In the meantime, HELCO plans to consult with the Consumer

lower than the cost of receiving service under HELCO’s applicable standard rate schedule, but higher than HELCO’s marginal cost of providing service. Due to the manner in which rates have been established in Hawaii, HELCO’s rates for its large commercial customers are not only higher than HELCO’s marginal costs, but also are higher than its average embedded costs of providing service to such customers.

²⁸ If Rider A is modified to make it voluntary, current Rider A customers (as well as customers that have DG/CHP systems installed in the future) will have the opportunity to sign up for the Rider A option. If they do not elect to sign up for the Rider A option, they will not be subject to any Rider A charges, and will receive all service under the appropriate regular rate schedule.

At the present time, the rider applies “when a customer regularly obtains power service from a source(s) other than the Company, and obtains supplemental service from the Company when its non-utility power source(s) capability is less than its total power requirements; and/or requires standby service from the Company.” (Rider A, Terms and Conditions #1.) It does not apply when “a customer’s non-utility power source(s) is used exclusively for emergency service in case of failure of the normal supply of power service from the Company, or to a customer that has an Agreement with the Company which provides for the sale of electric energy and/or capacity to the Company that was approved by the Commission prior to October 25, 1999, or to a customer whose non-utility power is produced from a non-fossil energy source.” (Rider A, Terms and Conditions #2.)

Rider A also provided that the “connection and operation of the customer’s non-utility power source(s) in parallel with the Company’s system will be permitted when the customer is served under this Rider, and in accordance with the terms of a contract with the Company for parallel operation.” (Rider A, Terms and Conditions #3.) The requirement for an interconnection agreement in order to connect and operate a non-utility power source in parallel with HELCO’s system is now governed by

Advocate as to its views on the continued fairness of the standby service rider, since HELCO and the Consumer Advocate stipulated to the form of the standby service rider approved by the Commission.

If the Commission determines that Rider A should be made voluntary in order to alleviate concerns that Rider A will impede the efforts of competing suppliers of DG/CHP systems, then HELCO will file a revision to Rider A (using the 30-day notice provisions of HRS Section 269-16(b)) as soon as a determination has been made that HELCO will be permitted to provide CHP services to customers.

XII

AUTHORIZATION

1. Authorization to establish Schedule CHP – Customer-Sited Utility-Owned Cogeneration Service, and to modify each Companies' ECAC and Schedule Q, is sought under the provisions of Sections 269-12(b) and 269-16(b), Hawaii Revised Statutes ("HRS"), and Rule 6-61-111 of the Commission's Rules of Practice and Procedure, Title 6, Chapter 61, Hawaii Administrative Rules ("HAR"). A copy of each Company's proposed Schedule CHP is attached as Exhibit E.

2. Commission approval to include the fuel and transportation costs, and related revenue taxes, incurred under the CHP Agreements, filed pursuant to the CHP Program and Schedule CHP, in each Company's respective ECAC, to the extent that the costs are not recovered in each Company's base rates, is sought pursuant to Rule 6-60-6

Hawaii Electric Light Company, Inc. • PO Box 1027 • Hilo, HI 96721-102



Warren H. W. Lee, P.E.
President

August 25, 2003

FILED

2003 AUG 25 P 3:41

PUBLIC UTILITIES
COMMISSION

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 99-0207
HELCO 2000 Test Year Rate Case
Rider A - Standby Service Report

In accordance with Decision and Order No. 18575, filed June 1, 2001, and Order No. 20151, filed April 24, 2003, attached is HELCO's Rider A - Standby Service Report. Page 9 and Attachment A, pages 3-10, exclude customer kW load and monthly billing information that is deemed confidential. This confidential information will be provided to the Commission and Consumer Advocate under Protective Order No. 17603. HELCO is unwilling to provide the confidential information to The Gas Company because it could work to the competitive disadvantage of HELCO if they have access to the information.

The Rider A - Standby Service Report also includes a proposal by HELCO to modify Rider A, Standby Service (see pages 2-4).

If you have any questions on this matter, please contact Patsy Nanbu at 543-4702.

Sincerely,

Attachment

cc: Division of Consumer Advocacy
Clifford Higa, Esq.
Gail Gilman
Alan Oshima, Esq.

Hawaii Electric Light Company, Inc.
Report to the Hawaii Public Utilities Commission
on
Rider A, Standby Service
Docket No. 99-0207
August 25, 2003

Background

In Decision and Order No. 18575 ("D&O 18575"), filed June 1, 2001, Docket No. 99-0207 (Hawaii Electric Light Company, Inc.'s ("HELCO") 2000 Test Year Rate Case), the Commission approved HELCO's Rider A, Standby Service. In ordering paragraph 2 of Order 18575, the Commission ordered HELCO to file, by July 31, 2002, the report referred to in Section III.C, which stated the following:

Accordingly, HELCO shall, by July 31, 2002, submit to the commission and Consumer Advocate a report detailing, at a minimum: (1) the number of customers on Rider A and the terms and form of each customer's standby service; (2) the number of customers that have opted to leave HELCO's system in toto in lieu of standby service; (3) the amount of kWh reduction due to customers leaving HELCO's system or who opt for standby service; (4) the corresponding amount of revenue loss due to the reduction in kWh sales and demand consumption; (5) the impact to HELCO's rate of return as a result of this revenue loss; (6) each standby customer's peak load and generating capacity installed; and (7) how the customer is base loading its own generating units.

The July 31, 2002 filing date was extended, at HELCO's request, to August 7, 2002 by Order No. 19493, filed July 31, 2002, in Docket No. 99-0207.

In Order No. 20151, filed April 24, 2003, the Commission ordered that, unless ordered or directed otherwise, HELCO shall continue to file, by August 7th of each year, its annual standby service report. In addition, the Commission revised the scope of paragraph (4) regarding the corresponding amount of revenue loss due to the reduction in kWh sales and demand consumption, set forth in Decision and Order No. 18575, page 8. The Commission required that the corresponding amount of revenue loss due to the reduction in kWh sales and demand consumption be broken down by its various components to enable the Commission and Consumer Advocate to better determine whether HELCO's Rider A is a deterrent for cogeneration and other non-utility generation.

The August 7, 2003 filing date was extended, at HELCO's request, to August 21, 2003 by Order No. 20372, filed August 8, 2003, in Docket No. 99-0207. On August 21, 2003, HELCO requested a one-day extension, to August 22, 2003, and on August 22, 2003, HELCO requested an extension, to August 25, 2003, to file its Rider A - Standby Service Report.

Proposal Regarding Rider A, Standby Service

As is indicated in the response of Hawaiian Electric Company, Inc. ("HECO"), Maui Electric Company, Limited ("MECO") and HELCO (jointly referred to as the "Companies"), filed August 5, 2003, to Informal Complaint No. IC-03-098, the Companies intend to file applications for approval of a combined heat and power ("CHP") tariff provision, under which the Companies would provide CHP services to eligible customers. Under its tariff provision, HELCO would own, operate and maintain customer-sited, packaged CHP systems (and certain ancillary equipment used to convert waste heat to chilled or heated water) pursuant to a standard form contract with the customer.¹ Pending approval of a CHP tariff, HELCO may request approval for individual CHP projects to be installed pursuant to special service contracts under Rule 4 of its tariff. These contracts would contain the same basic terms and conditions as those in the standard form contract to be proposed for the CHP tariff.

One of the "concerns" identified by the Complainants (in Informal Complaint No. IC-03-098) was with the Standby Charge provision (Rider A, Standby Service) on the Big Island:

HELCO currently has in effect a standby charge that is higher than the otherwise applicable rate for purchasing electricity. HELCO is therefore in a unique position to sell CHP to its customers, because HELCO-owned and maintained CHP will be far more economical to the customer than third-party-owned or customer-owned on-site generation. (July 1, 2003 Letter to the Commission from the Vice-President for Pacific Machinery, Inc., the Branch Manager for Johnson Controls, Inc., and the Manager-Construction for Noresco, Inc., Appendix, p. 10.)

In response, the Companies pointed out that Complainants' "concerns" regarding the Standby Service rider were overstated. The Rider A provision on Hawaii was stipulated to by the Consumer Advocate, and approved by the Commission, after extensive review and revision in Docket No. 99-0207.² If distributed generation ("DG")/CHP customers install the DG/CHP meter required by the Rider, and take advantage of the options offered by the Rider, they may well be able to obtain backup service at lower cost than under HELCO's regular rate schedules.³

Nonetheless, HELCO also recognized in its response that Rider A continues to generate controversy and misunderstanding - - regardless of whether that is warranted or not. Thus, HELCO indicated that it was reviewing possible options, and would report its recommendation(s) to the Commission in its next Rider A Standby Service Report.

¹ Such a CHP program would address State and electric utility objectives of encouraging the efficient use of energy, offering cost-effective choices to utility customers, and helping to defer the need for central station generation.

² The Standby Service rider was approved and allowed to take effect by Decision and Order No. 18575 (filed June 1, 2001), in Docket No. 99-0207. The Standby Service rider went into effect on June 5, 2001.

³ As is indicated in HELCO's Rider A Standby Charge Report filed August 7, 2002, and in this report, customers receiving standby service have not installed the meter socket required by Rider A.

Rider A, Standby Service
Docket No. 99-0207
August 25, 2003
Page 3

A standby service provision was proposed on the Big Island because of HELCO's concern that application of its existing rate schedules to customers with on-site generation would not cover the cost of providing backup service to such customers. The goal in designing Rider A was to set fair and equitable rates that reasonably recovered the costs of providing standby service from standby customers imposing such costs. The following principles were applied in designing Rider A:

1. The standby service rates should be fair to the customer while reflecting the unique characteristics of the utility system, the costs of providing the service, the requirements placed on the utility system by the standby service customer, and the impacts on other customers.
2. Standby service rates should send proper price signals, such that economically efficient decisions on the part of self-generators to secure standby service result. Standby service rates should not encourage uneconomic bypass⁴ or encourage inefficient use of standby service to the detriment of other customers.

In their informal complaint, Complainants suggested that HELCO simply "repeal" Rider A. HELCO has considered that option, but believes that Rider A should continue to apply to non-utility DG/CHP installations unless it is determined that that would be unfair after HELCO enters the CHP business on a regulated basis. That issue can be addressed when HELCO seeks approval for a CHP contract or program. Thus, when HELCO files an application for approval of a CHP contract or program, whichever occurs first, HELCO will request either (1) a finding that continued application of the standby service rider is fair in light of its proposed CHP pricing,⁵ or in the alternative (2) a determination that application of the standby service rider to non-utility DG/CHP installations should be made voluntary.⁶ HELCO would accept the burden of showing

⁴ "Uneconomic bypass" occurs when the cost of a customer's alternative source of electrical energy is lower than the cost of receiving service under HELCO's applicable standard rate schedule, but higher than HELCO's marginal cost of providing service. Due to the manner in which rates have been established in Hawaii, HELCO's rates for its large commercial customers are not only higher than HELCO's marginal costs, but also are higher than its average embedded costs of providing service to such customers.

⁵ HELCO plans to charge for utility CHP service through its regular rate schedules, taking into account economies offered by locating generation at customer sites. HELCO will recover demand costs through the demand charge and the energy charge (which non-utility CHP users avoid, thereby necessitating the implementation of a standby charge).

⁶ If Rider A is modified to make it voluntary, current Rider A customers (as well as customers that have DG/CHP systems installed in the future) will have the opportunity to sign up for the Rider A option. If they do not elect to sign up for the Rider A option, they will not be subject to any Rider A charges, and will receive all service under the appropriate regular rate schedule.

At the present time, the rider applies "when a customer regularly obtains power service from a source(s) other than the Company, and obtains supplemental service from the Company when its non-utility power source(s) capability is less than its total power requirements; and/or requires standby service from the Company." (Rider A, Terms and Conditions #1.) It does not apply when "a customer's non-utility power source(s) is used exclusively for emergency service in case of failure of the normal supply of power service from the Company, or to a customer that has an Agreement with the Company which provides for the sale of electric energy and/or capacity to the Company that was approved by the Commission prior to October 25, 1999, or to a customer whose non-utility power is produced from a non-fossil energy source." (Rider A, Terms and Conditions #2.)

HESS-SOP-IR-5 to HECO

Ref.: HECO's SOP p. 30

Please explain what criteria will be used to determine if a Standby Rate is appropriate for Hawaiian Electric Company, Inc. and Maui Electric Company, Limited? If a Standby Rate is implemented by these utilities, do these utilities plan to impose said Standby Rate on itself if it owns DG resources. If no, please explain in detail why not?

HECO Response:

The design principles for standby charges are summarized on pages 73-74 of the CHP Program Application (see response to HESS-SOP-IR-4) and are detailed in HELCO's Final Standby Service Rider Proposal and Supporting Statement filed January 24, 2001 in Docket No. 99-0207. HECO and MECO also plan to charge for electricity from CHP Systems that they install under their CHP Programs (or any Rule 4 Contracts) in the same manner that HELCO plans to charge for electricity. See also the attached list of documents related to HELCO's Rider A – Standby Service.

Title		Author	Date
HELCO RIDER A – STANDBY SERVICE			
Docket No. 99-0207 - HELCO Rate Case, Test-Year 2000			
a. HELCO T-18, Pages 18-21			
b. HELCO-106			
c. HELCO RT-18, Pages 8-13			
d. HELCO-R-1810			
e. HELCO Response to IRs			
f. HELCO Responses to SIRs			
g. HELCO Responses to Rebuttal IRs			
h. HELCO's Final Standby Service Rider Proposal and Supporting Statement			
i. HELCO's Response to the Gas Company's Final Position			
j. PUC D&O No. 18575			
k. HELCO's Rider A – Standby Service Report, August 2003			
l. Standby Rates: Methods and Descriptions	EEI	April 1991	
m. Standby Services and Efficient Competition: Designing for the Markets of the Future	Megdal/ Ackerman	1995	
Note: For item k., certain confidential customer information has been redacted and provided under a protective order.			

HESS-SOP-IR-6 to HECO

Ref.: HECO's SOP p. 32

Please explain HECO position in regards to Utility Service Termination Charges and when does HECO believe such charges would be appropriate?

HECO Response:

See response to CA-IR-23.

HESS-SOP-IR-7 to HECO

Ref.: HECO's SOP p. 32

Please explain the "significant effort" that is being made in the current round of integrated resource planning for HECO to consider DG technologies, and in particular, CHP technologies.

HECO Response:

(Note: The reference page of HECO's Preliminary SOP does not reference "significant effort" in integrated resource planning. However, page 33 of HECO's Preliminary SOP references "significant effort" in integrated resource planning, and is assumed to be the reference page for this Information Request).

The "significant effort" that is being made in integrated resource planning refers to the development of an aggregate forecast of DG resources as was done for CHP systems in the analysis for the CHP Program application, Docket No. 03-0366. Subsequently, the aggregate forecast of DG resources will be integrated with the forecasted load as well as information on possible future demand-side and supply-side resources.